



0000093224

Direct Fax: 602 734-3771  
AAcken@LRLaw.com  
Admitted in: Arizona

50TP

RECEIVED

2009 JAN 30 A 9:25

Our File Number: 43431-00001

ORIGINAL

AZ CORP COMMISSION  
DOCKET CONTROL

January 30, 2009

VIA HAND DELIVERY

Arizona Corporation Commission  
Utilities Division - Docket Control  
1200 W. Washington Street  
Phoenix, Arizona 85007

Re: *Ten Year Plan*  
Docket No: *E-00000D-09-0020*

Attached for filing in the above docket is the original and thirteen (13) copies of  
Southern California Edison Company's 2009-2018 Ten Year Plan.

Very truly yours,

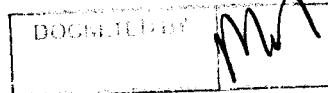
LEWIS AND ROCA LLP

Albert H. Acken  
Attorneys for Southern California Edison Company

AA/mjh  
Enclosure

Arizona Corporation Commission  
DOCKETED

JAN 30 2009



**SOUTHERN CALIFORNIA EDISON COMPANY**

**2009-2018**

**TEN-YEAR PLAN**

**Prepared for the  
Arizona Corporation Commission**

**January 2009**

2014422

**SOUTHERN CALIFORNIA EDISON COMPANY**  
**2009-2018**  
**TEN-YEAR PLAN**

**General Information**

Pursuant to A.R.S. § 40-360.02, Southern California Edison ("SCE") submits its 2009-2018 Ten-Year Plan ("Plan") to the Arizona Corporation Commission ("Commission"). The Plan (contained in Attachment A) describes planned transmission facilities of 115 kV or higher voltage that SCE may construct in Arizona over the next ten-year period. Pursuant to A.R.S. § 40-360(1), underground facilities are not included.

This Plan provides tentative information that, pursuant to A.R.S. § 40-360.02(F), is subject to change. At this time, SCE plans to go forward with three projects: the Devers-Palo Verde No. 2 500 kV transmission line project (2011) ("DPV2"), the new 500/230 kV substation called Salome (2013), and the Moenkopi-Eldorado 500 kV Series Capacitor Upgrade Project (2015) ("Series Capacitor Upgrade"). However, SCE cannot be certain that it is going forward with the third project described in the Plan, Series Capacitor Upgrade; SCE will need to perform the technical studies and economic analyses to cost-justify and design the third project.

DPV2 will be a second 500 kV transmission line between SCE's existing Devers Substation (near Palm Springs) and the new APS Delany Switchyard (formally called Harquahala Junction, located west of Phoenix, Arizona), tentatively scheduled for operation in 2011. The Delany Switchyard would be located at the juncture where the existing Harquahala Generating Station-Hassayampa 500 kV and the Palo Verde-Devers 500 kV lines begin to share common right of way about 5 miles from the Harquahala Generating Station. The proposed Delany Switchyard would also provide the terminus for APS' proposed 500 kV line to a planned TS-5 substation. SCE also identified an alternative connection of the proposed line to the Harquahala Generating Station switchyard.

The California Independent System Operator approved the DPV2 project in 2004. Also, the path rating increases between Arizona and California associated with DPV2's plan of service were approved in 2005 and 2006 by the Western Arizona Transmission System Task Force and the Western Electricity Coordinating Council, respectively.

The second project is the 500/230 kV Salome Substation, located near the existing Devers – Palo Verde No. 1 capacitor bank. The final design of the substation may not require changes to transmission lines, towers, or poles, but SCE has included the project in this filing in case changes are required. The recently proposed Harcuvar Transmission Project (HTP) will interconnect with DPV2 through Salome. The HTP consists of two components. The first is a proposed 90 mile, 230 kV transmission loop located in La Paz County, Arizona, approximately 50 miles west of the Palo Verde Hub. The southern end of this loop will interconnect with the proposed DPV2 just east of the Kofa Wildlife Refuge. The northern end will interconnect to the Western Area Power Administration's (Western's) existing Harcuvar 230 kV substation. The second component of the HTP entails joint ownership rights in the DPV2 from the point of interconnection (Salome Substation) to the Palo Verde hub.

Presently, feasibility studies are being performed in conjunction with the Central Arizona Water Conservation District (CAWCD) to evaluate the interconnection of the HTP. The technical studies include evaluating Salome Substation as a delivery point for solar renewable resources from western Arizona to the Palo Verde hub, and improved service and reliability to the Central Arizona Project's pump load. A SCE/CAWCD Memorandum of Understanding summarizing the interconnection to DPV2 and its benefits is expected to be finalized the end of February 2009.

SCE's more tentative project is its Series Capacitor Upgrade project, which involves SCE upgrading series capacitors in the Moenkopi-Eldorado 500 kV line. The operating date of this project is not firm, but expected to be 2015. The final design of

the project may not require changes to transmission lines, towers, or poles, but SCE has included the project in this filing in case that assumption is incorrect.

The Series Capacitor Upgrade project described in the Plan will be analyzed in several stakeholder processes, including those before the Southwest Area Transmission Subregional planning group, the Western Arizona Transmission System task force, and the Western Electricity Coordinating Council.

Written descriptions of each of the proposed transmission projects are provided in Attachment A. The two maps (shown as Attachment A, Diagrams 1 and 2) provide a general illustration of line routing. They are general maps and subject to revision. Specific routing for DPV2 will be determined by the Arizona Power Plant and Transmission Line Siting Committee and the Arizona Corporation Commission when issuing a Certificate of Environmental Compatibility and through subsequent right-of-way acquisition.

Pursuant to A.R.S. § 40-360.02(c)(7), where available the submitted Plan should also include technical study results and power flow stability analyses showing the effect on the current Arizona electric transmission system for the project identified. The latest available study that has been performed for the DPV2 Project was provided to and is available in Docket No. E-00000D-07-0376, the Fifth Biennial Transmission Assessment, 2008-2017.

**ATTACHMENT A**

**SOUTHERN CALIFORNIA EDISON COMPANY  
2009-2018  
TEN-YEAR PLAN**

**Planned Transmission Project Descriptions**

**SOUTHERN CALIFORNIA EDISON COMPANY**  
**2009-2018**  
**TEN-YEAR PLAN**  
**2011**

<u>Line Description</u>	Devers-Palo Verde No. 2
<u>Size</u>	
a) Voltage	500 kV AC
b) Capacity	1200 MW
c) Point of Origin	Delany Switchyard (or alternatively Harquahala Generating Station)
d) Intermediate Point	New eastern California Substation – Midpoint 500/230 kV
e) Point of Termination	Devers Substation
f) Length	230 miles (104 miles in Arizona and 126 miles in California)
<u>Routing</u>	<p>The proposed line route between Devers and Harquahala parallels SCE's existing Palo Verde-Devers 500 kV line.</p> <p>Twenty miles of new right of way acquisition is required, assuming the existing BLM right of way is still available to SCE for the remaining 210 miles of the line route.</p>
<u>Purpose</u>	This 500 kV line will increase transfer capability between Arizona and Southern California and provide accessibility for solar renewable resources from western Arizona to the Palo Verde hub.
<u>Date</u>	
a) Estimated Construction Start	end of 2009
b) Estimated In-Service	end of 2011

**SOUTHERN CALIFORNIA EDISON COMPANY**  
**2009-2018**  
**TEN-YEAR PLAN**  
**2013**

Line Description                      Salome 500/230kV Substation – interconnection of  
the Devers – Palo Verde No. 2.

Size

g) Voltage                              500 kV/230 kV AC

h) Capacity                             4300 MW

i) Point of Origin                      Salome is proposed to be located near the existing  
Devers – Palo Verde No. 1 capacitor bank that is  
east of the Kofa Wildlife Refuge

j) Intermediate Point                  Harcuvar 230 kV Substation

k) Point of  
Termination

l) Length

Routing                                The actual point of interconnection will be  
dependent upon the results of environmental and  
right-of-way studies being conducted as a  
component of the Harcuvar Transmission Project's  
development phase.

Purpose                                    The purpose of the proposed Salome substation is to  
provide solar renewable generation access to the  
regional EHV transmission system. This  
interconnection also will provide load serving  
entities in La Paz and Mohave counties access to  
the Palo Verde hub.

Date

c) Estimated                              2011  
Construction Start

d) Estimated In-                        2013  
Service

**SOUTHERN CALIFORNIA EDISON COMPANY**  
**2009-2018**  
**TEN-YEAR PLAN**  
**2013**

Line Description                      Salome 500/230kV Substation – interconnection of  
the Devers – Palo Verde No. 2.

Size

g) Voltage                              500 kV/230 kV AC

h) Capacity                             4300 MW

i) Point of Origin                      Salome is proposed to be located near the existing  
Devers – Palo Verde No. 1 capacitor bank that is  
east of the Kofa Wildlife Refuge

j) Intermediate Point                  Harcuvar 230 kV Substation

k) Point of  
Termination

l) Length

Routing                                The actual point of interconnection will be  
dependent upon the results of environmental and  
right-of-way studies being conducted as a  
component of the Harcuvar Transmission Project's  
development phase.

Purpose                                    The purpose of the proposed Salome substation is to  
provide solar renewable generation access to the  
regional EHV transmission system. This  
interconnection also will provide load serving  
entities in La Paz and Mohave counties access to  
the Palo Verde hub.

Date

c) Estimated                              2011  
Construction Start

d) Estimated In-                        2013  
Service

Diagram 1  
Devers – Palo Verde No. 2 (2011)

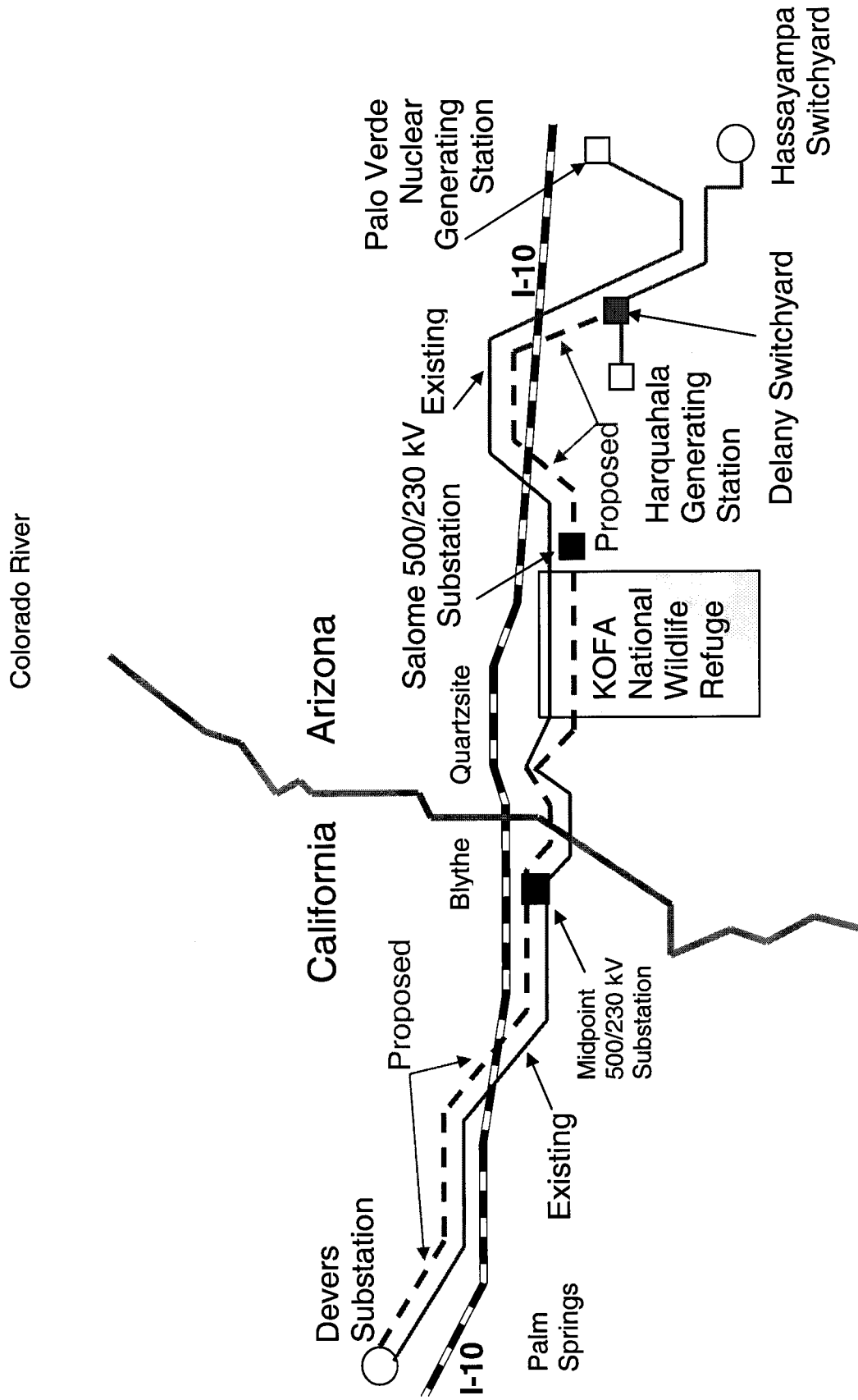
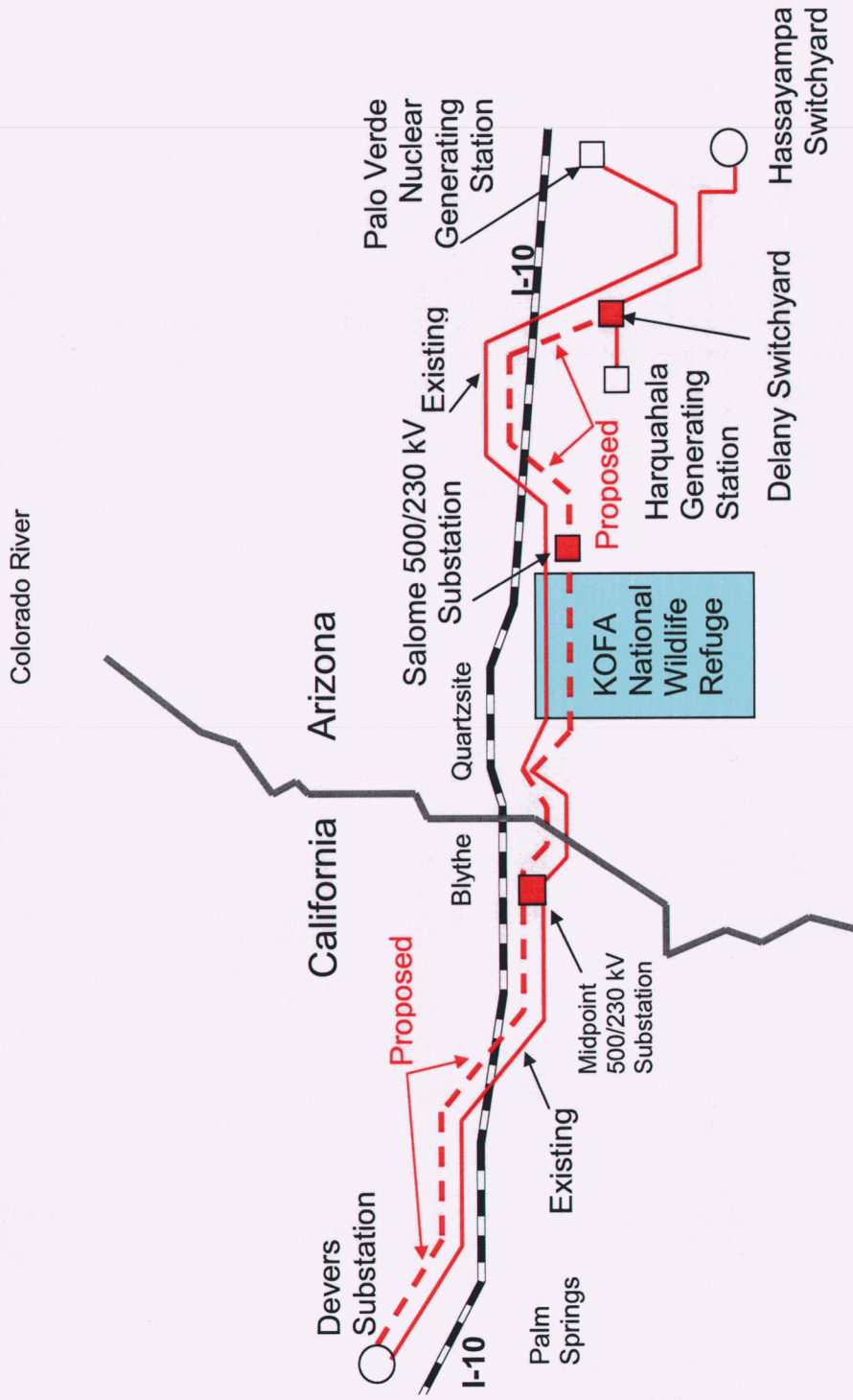


Diagram 1  
Devers – Palo Verde No. 2 (2011)



# Diagram 2

## Devers – Palo Verde No 2 (2011)

